



```
73     if (temperature > 20)
74     {
75         digitalWrite(12, HIGH);
76         digitalWrite(13, LOW);
77     }
78     else
79     {
80         digitalWrite(12, LOW);
81         digitalWrite(13, LOW);
82     }
83 }
84
85 long microsecondsToInches(long microseconds) {
86     return microseconds / 74 / 2;
87 }
88
89 long microsecondsToCentimeters(long microseconds) {
90     return microseconds / 29 / 2;
91 }
```

```
37 inches = microsecondsToInches(duration);
38 cm = microsecondsToCentimeters(duration);
39
40
41 servol.write(0);
42
43 if(cm < 40)
44 {
45     servol.write(90);
46     delay(2000);
47 }
48 else
49 {
50     servol.write(0);
51 }
52
53
54 int pir = digitalRead(2);
55
56 if(pir == HIGH)
57 {
58     digitalWrite(4,HIGH);
59     delay(1000);
60 }
61 else if(pir == LOW)
62 {
63     digitalWrite(4,LOW);
64 }
65
66
67 float value=analogRead(A0);
68 float temperature=value*0.48;
69
70 Serial.println("temperature");
71 Serial.println(temperature);
72
```

```
1  #include<Servo.h>
2  const int pingPin = 7;
3  int servoPin = 8;
4
5  Servo servol;
6
7  void setup() {
8      Serial.begin(9600);
9      servol.attach(servoPin);
10     pinMode(2, INPUT);
11     pinMode(4, OUTPUT);
12     pinMode(11, OUTPUT);
13     pinMode(12, OUTPUT);
14     pinMode(13, OUTPUT);
15     pinMode(A0, INPUT);
16     digitalWrite(2, LOW);
17     digitalWrite(11, HIGH);
18
19 }
20
21 void loop() {
22
23     long duration, inches, cm;
24
25     pinMode(pingPin, OUTPUT);
26     digitalWrite(pingPin, LOW);
27     delayMicroseconds(2);
28     digitalWrite(pingPin, HIGH);
29     delayMicroseconds(5);
30     digitalWrite(pingPin, LOW);
31
32
33     pinMode(pingPin, INPUT);
34     duration = pulseIn(pingPin, HIGH);
35
36
```